POST CONTROL EVALUATION
DWARF MISTLETOE CONTROL PROJECT

Hominy Creek
Roosevelt Ranger District
Ashley National Forest

Introduction - On June 6, 1974, Plant Pathologist E. L. Hobbs established a series of twelve temporary plots on the Hominy Creek Dwarf Mistletoe (DM) Control Project for the purpose of determining the effectiveness of a control project carried out in F.Y. 1973. The 1/300 acre plots were established at one-chain length intervals along a random line through the project area. All overstory lodgepole pine had been felled in the control project, leaving only the understory and scattered Engelmann spruce and subalpine fir overstory trees. The understory was inspected for dwarf mistletoe, and measurements of height and d.b.h. were made.

Location - Hominy Creek, Roosevelt Ranger District, Ashley National Forest. (See map included with original Biological Evaluation.)

Host and Forest Type - The host plant is lodgepole pine (Pinus contorta Dougl.). This species is most abundant, but there are scattered Engelmann spruce (Picea Engelmanni Engelm.) and Subalpine Fir (Abies lasiocarpa Nutt.).

Causal Agent - Lodgepole pine dwarf mistletoe (Arceuthobium americanum Nutt. ex Engelm.).

Stand Data - The area is stocked with an average of 650 trees per acre. Height of the trees ranges from 4 to 15 feet with an average of 9.6 feet. Average d.b.h. is 2 inches. Compared with the pre-control evaluation, these data indicate a slightly higher rate of stocking and a d.b.h. of 2 inches vs. 3 inches on the original Biological evaluation. The discrepancies in stocking and d.b.h. can be attributed to the inclusion of trees 4 to 5 feet high in several plots. These trees would not have been included in the original evaluation as they would have been less than 4 feet high in 1971 when the original evaluation was made.

Infection Level - The infection level of the regeneration is low--approximately 3.8 percent. The only dwarf mistletoe in all the plots sampled was a single branch on one tree. On that tree the infection class is 1 (Hawks). No loss of growth is occurring due to dwarf mistletoe infection at this time.

Environmental Factors - The area has a relatively deep snow pack in the winter. Infection on smaller trees may have been prevented by snow wiping the seeds of the parasite off the branches as the snow recedes. However, the larger trees would have been subject to infection by seeds coming from the infected overstory if the overstory had remained.

Discussion - At this time the project appears to have been highly successful. The infected overstory was completely removed before extensive infection of the understory occurred. There has been no significant increase in infection of the understory since the project was first evaluated. If infected trees are removed in future commercial thinnings, the level of infection should be at such a low level that the stand will not be adversely impacted.

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